

Case 2950

***Pseudofoenus* Kieffer, 1902 (Insecta, Hymenoptera): proposed designation of *Foenus unguiculatus* Westwood, 1841 as the type species**

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Abstract. The purpose of this application is the designation of *Foenus unguiculatus* Westwood, 1841 as the type species of the New Zealand parasitic wasp genus *Pseudofoenus* Kieffer, 1902 (family GASTERUPTIIDAE). At present the nominal species *Gasteruption pedunculatum* Schletterer, 1889 is the type, but the original male specimen of this lacks the diagnostic genitalia and its name is a junior synonym of either *F. unguiculatus* or *F. crassipes* Smith, 1876. The uncertainty would not be resolved by neotype designation because both the latter nominal species are typified by females and the sexes of the *Pseudofoenus* species have not yet been correlated.

Keywords. Nomenclature; taxonomy; Hymenoptera; GASTERUPTIIDAE; parasitic wasps; *Pseudofoenus*; *Pseudofoenus unguiculatus*; New Zealand.

1. The genus *Pseudofoenus* was described by Kieffer (1902, p. 6), who associated with it three nominal species of GASTERUPTIIDAE from New Zealand: *Foenus unguiculatus* Westwood, 1841 (p. 537), *F. unguicularis* Smith, 1876 (p. 480) and *Gasteruption pedunculatum* Schletterer, 1889 (p. 466). The first two were cited as 'species douteuses' so, as mentioned by Crosskey (1962, p. 392). *G. pedunculatum* is the type species by monotypy (Article 67g of the Code). Numerous species from outside New Zealand were later placed in *Pseudofoenus*, but Crosskey (1962, pp. 378, 398) restricted the genus to five nominal species from New Zealand, those listed above and also *Foenus crassipes* Smith, 1876 (p. 479) and *P. nocticolor* Kieffer, 1911 (p. 183). The *Pseudofoenus* species are apparently parasitic or predator-inquilines in the nests of colletid bees.

2. A recent revision (Jennings & Austin, 1994) of *Pseudofoenus* concluded that there are only two morphologically distinct taxonomic species. Both are known from many specimens from throughout New Zealand and can be distinguished in both sexes by the form of the hind tarsi in females and by the genitalia in males. However, no characters or observations are known at present by which males can be associated with females, and Jennings & Austin therefore treated the sexes separately (i.e. as four nominal species). The lack of sexual correlation leads to nomenclatural

difficulties since, of the five nominal species mentioned above, the types of *P. unguiculatus*, *P. unguicularis* and *P. crassipes* are females and those of *P. pedunculatus* and *P. nocticolor* are males.

3. Schletterer (1889, p. 468) stated that there was type material of *Gasteruption pedunculatum* (the type species of *Pseudofoenus*, see above) in the Natural History Museums of Berlin and of Zurich (collection now in the Swiss Federal Institute of Technology); however, there is no evidence of a specimen having been deposited in Zurich (B. Merz, pers. comm.). Institutions which received Schletterer specimens of other species have either been visited personally by J.T.J. or contacted by correspondence and no *G. pedunculatum* material has been found. The only surviving Schletterer specimen is no. 21874 in the Museum für Naturkunde, Humboldt Universität, Berlin: this lacks the entire metasoma (abdomen), and so the name cannot be assigned to either of the currently recognized taxonomic species and is in effect a nomen dubium. It would be possible to designate a male specimen of the second taxonomic species (i.e. that not conspecific with the undamaged male holotype of *P. nocticolor* Kieffer, 1911) as neotype of *G. pedunculatum*, and Jennings & Austin (1994, p. 1293) suggested this course. However, the name *pedunculatum* Schletterer, 1889 must be invalid since it is a synonym of either *unguiculatus* Westwood, 1841 (of which *unguicularis* Smith, 1876 is a synonym) or of *crassipes* Smith, 1876, both denoting older nominal species typified by females, and it will be displaced by one or other as a result of future information on the relationship between the sexes. The same applies to the name of *P. nocticolor* Kieffer, 1911. Various authors and cataloguers (Schletterer, 1889; Froggatt, 1891; Dalla Torre, 1902; Valentine & Walker, 1991) have variously synonymised *Pseudofoenus* specific names without examining the relevant type specimens and sometimes without consideration of the priority of names.

4. As reported in Jennings & Austin (1994, p. 1293), one of us (J.T.J.) has located a female specimen in the Hope Entomological Collections, University of Oxford, which was mentioned by Westwood as the depository of his specimen(s) of *Foenus unguiculatus*. This is labelled '*Foenus unguiculatus* Westw.' in Westwood's handwriting; Westwood believed it to be male but was mistaken in this (and in the locality 'Nova Hollandia' published in 1841, which he later doubted (1843, p. 259)). Since Westwood mentioned only 'male' in his descriptions of the species in 1841 and 1843 and there are no other specimens in Oxford we assume that this is the holotype. The provenances and present locations of numerous other female specimens are given by Jennings & Austin (1994, p. 1294). Since *Foenus unguiculatus* Westwood, 1841 is the oldest nominal species placed in *Pseudofoenus* its specific name is not only applicable to a taxon but will inevitably remain valid, while *pedunculatus* meets neither of these criteria. We therefore propose that *F. unguiculatus* be designated as the type species.

5. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Pseudofoenus* Kieffer, 1902 and to designate *Foenus unguiculatus* Westwood, 1841 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the name *Pseudofoenus* Kieffer, 1902 (gender: masculine), type species *Foenus unguiculatus* Westwood, 1841 by the designation in (1) above;

- (3) to place on the Official List of Specific names in Zoology the name *unguiculatus* Westwood, 1841, as published in the binomen *Foenus unguiculatus* (specific name of the type species of *Pseudofoenus* Kieffer, 1902).

References

- Crosskey, R.W. 1962. The classification of the Gasteruptionidae (Hymenoptera). *Transactions of the Royal Entomological Society of London*, **114**: 377–402.
- Dalla Torre, K.W. 1902. Trigonalidae, Megalyridae, Stephanidae, Ichneumonidae, Agrotypidae, Evaniidae, Pelecinidae. *Catalogus Hymenopterorum*, **3**(2): 545–1141.
- Froggatt, W.W. 1891. Catalogue of the described Hymenoptera of Australia. *Proceedings of the Linnean Society of New South Wales*, **5**: 689–762.
- Jennings, J.T. & Austin, A.D. 1994. Revision of *Pseudofoenus* Kieffer (Hymenoptera: Gasteruptionidae), a hyptiogastrine wasp genus endemic to New Zealand. *Invertebrate Taxonomy*, **8**: 1289–1303.
- Kieffer, J.-J. 1902. Hymenoptera. Fam. Evaniidae. *Genera Insectorum* (Wytsman, P. (Ed.)), fascicle 2. 13 pp. Verteneuil & Desmet, Bruxelles.
- Kieffer, J.-J. 1911. Étude sur les Évaniides exotiques (Hym.) du British Museum de Londres. *Annales de la Société Entomologique de France*, **80**: 151–231.
- Schletterer, A. 1889. Der Hymenopteren-gruppe der Evaniidae. *Annalen des K.K. Naturhistorischen HofMuseums* (Wien), **4**: 107–180, 289–338, 373–546.
- Smith, F. 1876. Descriptions of new species of hymenopterous insects of New Zealand collected by C.M. Wakefield Esq., principally in the neighbourhood of Canterbury. *Transactions of the Entomological Society of London*, **1876**: 473–492.
- Valentine, E.W. & Walker, A.K. 1991. *Annotated catalogue of New Zealand Hymenoptera*. Plant Protection Report, no. 4. 84 pp. DSIR, Wellington.
- Westwood, J.O. 1841. Evaniidae. *Annals and Magazine of Natural History*, **7**: 535–538.
- Westwood, J.O. 1843. [On the Evaniidae and some allied genera of Hymenopterous insects]. *Transactions of the Entomological Society of London*, **3**: 257–278.